

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/019,817.D  
Source: FFWJG  
Date Processed by STIC: 11-18-69

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IFW16

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/019,817D

DATE: 11/18/2004

TIME: 16:29:50

Input Set : N:\FATIMA\10019817.txt  
 Output Set: N:\CRF4\11182004\J019817D.raw

3 <110> APPLICANT: Societe des Produits Nestle S.A.  
 5 <120> TITLE OF INVENTION: The Lactose operon of *Lactobacillus delbrueckii* and its use  
 for  
 6 controlling gene transcription and/or expression in bacterial  
 7 cells  
 9 <130> FILE REFERENCE: 112843-039  
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/019,817D  
 12 <141> CURRENT FILING DATE: 2002-05-13  
 14 <150> PRIOR APPLICATION NUMBER: PCT/EP00/05834  
 15 <151> PRIOR FILING DATE: 2000-06-23  
 17 <150> PRIOR APPLICATION NUMBER: 99112471.0  
 18 <151> PRIOR FILING DATE: 1999-06-30  
 20 <160> NUMBER OF SEQ ID NOS: 33  
 22 <170> SOFTWARE: PatentIn version 3.2  
 24 <210> SEQ ID NO: 1  
 25 <211> LENGTH: 1435  
 26 <212> TYPE: DNA  
 27 <213> ORGANISM: *Lactobacillus delbrueckii*  
 29 <400> SEQUENCE: 1  
 30 gaattttgtc tggatgctca ggaagccgc cagctcaagc tggtgattca gccactttt 60  
 31 actgaataat gctacaattt gcttacacgc ataaaatttt agtaaaagcg agtgaagaag 120  
 32 atggcaacga tcagagaagt ggccaaggca gcccgcgtgt cgccagcgc ggttcccg 180  
 33 gtcttgaact atgaccagac cctgtcggtc aatgaggcaa cgccggcagaa gatattcaa 240  
 34 actgctgaag ccatacgacta ccataagagc cggaagacca gaaagagcaa gcaaaagcgc 300  
 35 ctggcgatct gcctgtggtg tgaccaagac caggagatca aggacctcta ttactattca 360  
 36 atcagaacca ggcgcgaagc agaggccaa agcaggggac ttgaaagcca ggtcatttat 420  
 37 ccggctgatc ctttgcggca tccagctgtt ttaagcggga ttatcatgtat tggctaccag 480  
 38 cagtattcgc cagaccgcctt gaatgaagtc aaaaagtctg gcctgccccctt ggtctttgtc 540  
 39 gatactgaca ccttaaaattt gggttactgc tcagttgtgg ctgactttgg ccagccatg 600  
 40 caggaggcgc tagaggtctt ctgggggcag ggcaggggac ggatcgcctt tttggatgg 660  
 41 gattggaca gtaattttga taaaaacaac ttggtcgact tccgcttcg cgattataag 720  
 42 aagagcctcg cggcccgccg ccagtacgc cggacttag tctatgttgg aaacttcact 780  
 43 ccgcaatctg gctatgaagc cattaaagaa gctcttaagt cggcgtccctt cccgaaagcc 840  
 44 ttgattgcgg ctaatgacgc catggctatt ggagcattga aggccctttaa agaagctgga 900  
 45 attaaagtcc cagaggacgt cagtctgtt tctttatg acacaacgcg acgagaattt 960  
 46 gccaacccag ctttgcactt cgtacatgtt gagaccgcg agatggccg agccagcgtc 1020  
 47 aaggtcatga aagacctgtt ggtatgtat gaagccggca cttacaagt cactttccca 1080  
 48 acaaaaactcg ttaccggca atcttgcctt aaagcataag ggcatacgcg ataataacag 1140  
 49 caaagaaata gcttggagat tgattttctc caagcttattt ttcgtatata ttatggctgc 1200  
 50 attctgttga tcattttgg gaatgggaca gttcacgaa cgtggccat cttgcagatc 1260  
 51 caggcaatga cccgttcaaa gccatcccg aagccggagt gcccgcacgtg ccgtactttt 1320  
 52 ctcagggtcc caggtaccca ggagtagtgc tcccagggtt gaggcccgt tcttcgattt 1380  
 53 gccccttcaa ggtgtcgtag tcagcttcac gttctgatcc gccatgattt cccgt 1435  
 59 <210> SEQ ID NO: 2

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60 <211> LENGTH: 332
61 <212> TYPE: PRT
62 <213> ORGANISM: Lactobacillus delbrueckii
64 <400> SEQUENCE: 2
66 Met Ala Thr Ile Arg Glu Val Ala Lys Ala Ala Gly Val Ser Pro Ala
67 1 5 10 15
70 Thr Val Ser Arg Val Leu Asn Tyr Asp Gln Thr Leu Ser Val Asn Glu
71 20 25 30
74 Ala Thr Arg Gln Lys Ile Phe Lys Thr Ala Glu Ala Met His Tyr His
75 35 40 45
78 Lys Ser Arg Lys Thr Arg Lys Ser Lys Gln Lys Arg Leu Ala Ile Cys
79 50 55 60
82 Leu Trp Cys Asp Gln Asp Gln Glu Ile Lys Asp Leu Tyr Tyr Tyr Ser
83 65 70 75 80
86 Ile Arg Thr Ser Ala Gln Ala Glu Ala Lys Lys Gln Gly Leu Glu Ser
87 85 90 95
90 Gln Val Ile Tyr Pro Ala Asp Pro Leu Pro Asp Pro Ala Ala Leu Ser
91 100 105 110
94 Gly Ile Ile Met Ile Gly Tyr Gln Gln Tyr Ser Pro Asp Arg Leu Asn
95 115 120 125
98 Glu Val Lys Lys Ser Gly Leu Pro Leu Val Phe Val Asp Thr Asp Thr
99 130 135 140
102 Leu Lys Leu Gly Tyr Cys Ser Val Val Ala Asp Phe Gly Gln Ala Met
103 145 150 155 160
106 Gln Glu Ala Leu Glu Val Phe Trp Gly Gln Gly Arg Glu Arg Ile Ala
107 165 170 175
110 Leu Leu Asp Gly Asp Leu Asp Ser Asn Phe Asp Lys Asn Asn Leu Val
111 180 185 190
114 Asp Phe Arg Phe Arg Asp Tyr Lys Lys Ser Leu Ala Ala Arg Gly Gln
115 195 200 205
118 Tyr Asp Pro Asp Leu Val Tyr Val Gly Asn Phe Thr Pro Gln Ser Gly
119 210 215 220
122 Tyr Glu Ala Ile Lys Glu Ala Leu Lys Ser Gly Ser Phe Pro Lys Ala
123 225 230 235 240
126 Leu Ile Ala Ala Asn Asp Ala Met Ala Ile Gly Ala Leu Lys Ala Phe
127 245 250 255
130 Lys Glu Ala Gly Ile Lys Val Pro Glu Asp Val Ser Leu Ile Ser Phe
131 260 265 270
134 Asn Asp Thr Thr Ala Ala Glu Phe Ala Asn Pro Ala Leu Thr Ser Val
135 275 280 285
138 His Val Glu Thr Gln Gln Met Gly Arg Ala Ser Val Lys Val Met Lys
139 290 295 300
142 Asp Leu Leu Asp Asp Asp Glu Ala Gly Thr Tyr Lys Val Thr Phe Pro
143 305 310 315 320
146 Thr Lys Leu Val Tyr Arg Glu Ser Cys Pro Lys Ala
147 325 330
150 <210> SEQ ID NO: 3
151 <211> LENGTH: 6
152 <212> TYPE: DNA

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153 <213> ORGANISM: Lactobacillus delbrueckii  
 155 <400> SEQUENCE: 3  
 156 tgttta 6  
 159 <210> SEQ ID NO: 4  
 160 <211> LENGTH: 7  
 161 <212> TYPE: DNA  
 162 <213> ORGANISM: Lactobacillus delbrueckii  
 164 <400> SEQUENCE: 4  
 165 gtaaaca 7  
 168 <210> SEQ ID NO: 5  
 169 <211> LENGTH: 7  
 170 <212> TYPE: DNA  
 171 <213> ORGANISM: Lactobacillus delbrueckii  
 173 <400> SEQUENCE: 5  
 174 gtaaacg 7  
 179 <210> SEQ ID NO: 6  
 180 <211> LENGTH: 17  
 181 <212> TYPE: DNA  
 182 <213> ORGANISM: Lactobacillus delbrueckii  
 184 <400> SEQUENCE: 6  
 185 cgcctggta ttcagcc 17  
 188 <210> SEQ ID NO: 7  
 189 <211> LENGTH: 20  
 190 <212> TYPE: DNA  
 191 <213> ORGANISM: Lactobacillus delbrueckii  
 193 <400> SEQUENCE: 7  
 194 agctttacgg ggaagtcccc 20  
 197 <210> SEQ ID NO: 8  
 198 <211> LENGTH: 15  
 199 <212> TYPE: DNA  
 200 <213> ORGANISM: Lactobacillus delbrueckii  
 202 <400> SEQUENCE: 8  
 203 tgtaagcgta aacaa 15  
 206 <210> SEQ ID NO: 9  
 207 <211> LENGTH: 98  
 208 <212> TYPE: DNA  
 209 <213> ORGANISM: Lactobacillus delbrueckii  
 211 <400> SEQUENCE: 9  
 212 tgtttactaa aaatattttg gtaaaggcatc ttgattttgtt tagtaaacgg gtctatactg 60  
 213 taagcgtaaa caagtttagaa cacctaaagg agaaaatc 98  
 216 <210> SEQ ID NO: 10  
 217 <211> LENGTH: 25  
 218 <212> TYPE: DNA  
 219 <213> ORGANISM: Lactobacillus delbrueckii  
 221 <400> SEQUENCE: 10  
 222 atattactgc agagaaaaag cgagt 25  
 225 <210> SEQ ID NO: 11  
 226 <211> LENGTH: 25  
 227 <212> TYPE: DNA

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Input Set : N:\FATIMA\10019817.txt  
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228 <213> ORGANISM: Lactobacillus delbrueckii
230 <400> SEQUENCE: 11
231 ataaataaagc ttacagaatg cagcc
234 <210> SEQ ID NO: 12
235 <211> LENGTH: 27
236 <212> TYPE: DNA
237 <213> ORGANISM: Lactobacillus delbrueckii
239 <400> SEQUENCE: 12
240 atattagaat tcagtgactt aaactgg
243 <210> SEQ ID NO: 13
244 <211> LENGTH: 27
245 <212> TYPE: DNA
246 <213> ORGANISM: Lactobacillus delbrueckii
248 <400> SEQUENCE: 13
249 atattagaat tcagtaactt gacaccg
252 <210> SEQ ID NO: 14
253 <211> LENGTH: 27
254 <212> TYPE: DNA
255 <213> ORGANISM: Lactobacillus delbrueckii
257 <400> SEQUENCE: 14
258 atattagaat tcaaggaggct atatcg
261 <210> SEQ ID NO: 15
262 <211> LENGTH: 18
263 <212> TYPE: DNA
264 <213> ORGANISM: Lactobacillus delbrueckii
266 <400> SEQUENCE: 15
267 ggttaatgcc gccaaagt
270 <210> SEQ ID NO: 16
271 <211> LENGTH: 25
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273 <213> ORGANISM: Lactobacillus delbrueckii
275 <400> SEQUENCE: 16
276 ataaatctgc agtgggtatg gtggc
279 <210> SEQ ID NO: 17
280 <211> LENGTH: 22
281 <212> TYPE: DNA
282 <213> ORGANISM: Lactobacillus delbrueckii
284 <400> SEQUENCE: 17
285 gatcggtgcc acattcacca cc
288 <210> SEQ ID NO: 18
289 <211> LENGTH: 21
290 <212> TYPE: DNA
291 <213> ORGANISM: Lactobacillus delbrueckii
293 <400> SEQUENCE: 18
294 ggtgaatgtg gcaacgatca g
299 <210> SEQ ID NO: 19
300 <211> LENGTH: 25
301 <212> TYPE: DNA
302 <213> ORGANISM: Lactobacillus delbrueckii

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RAW SEQUENCE LISTING  
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Input Set : N:\FATIMA\10019817.txt  
 Output Set: N:\CRF4\11182004\J019817D.raw

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304 <400> SEQUENCE: 19
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308 <210> SEQ ID NO: 20
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310 <212> TYPE: DNA
311 <213> ORGANISM: Lactobacillus delbrueckii
313 <400> SEQUENCE: 20
314 ataaaatctcg agtggtgatt cagcc 25
317 <210> SEQ ID NO: 21
318 <211> LENGTH: 25
319 <212> TYPE: DNA
320 <213> ORGANISM: Lactobacillus delbrueckii
322 <400> SEQUENCE: 21
323 atattactcg agacagaatg cagcc 25
326 <210> SEQ ID NO: 22
327 <211> LENGTH: 28
328 <212> TYPE: DNA
329 <213> ORGANISM: Lactobacillus delbrueckii
331 <400> SEQUENCE: 22
332 tgtttactaa aaatattttg gttaagca 28
335 <210> SEQ ID NO: 23
336 <211> LENGTH: 28
337 <212> TYPE: DNA
338 <213> ORGANISM: Lactobacillus delbrueckii
340 <400> SEQUENCE: 23
341 tgtttactaa aagtattttg gtaaaaca 28
344 <210> SEQ ID NO: 24
345 <211> LENGTH: 28
346 <212> TYPE: DNA
347 <213> ORGANISM: Lactobacillus delbrueckii
349 <400> SEQUENCE: 24
350 tggcgactaa aagtattttg gtaaaaca 28
353 <210> SEQ ID NO: 25
354 <211> LENGTH: 28
355 <212> TYPE: DNA
356 <213> ORGANISM: Lactobacillus delbrueckii
358 <400> SEQUENCE: 25
359 aaattactaa aaatattta gtaaaaca 28
362 <210> SEQ ID NO: 26
363 <211> LENGTH: 29
364 <212> TYPE: DNA
365 <213> ORGANISM: Lactobacillus delbrueckii
367 <400> SEQUENCE: 26
368 tcttgatttg tttagtaaac gggtctata 29
371 <210> SEQ ID NO: 27
372 <211> LENGTH: 29
373 <212> TYPE: DNA
374 <213> ORGANISM: Lactobacillus delbrueckii
376 <400> SEQUENCE: 27

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**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/019,817D

DATE: 11/18/2004

TIME: 16:29:51

Input Set : N:\FATIMA\10019817.txt

Output Set: N:\CRF4\11182004\J019817D.raw

L:11 M:270 C: Current Application Number differs, Wrong Format

L:434 M:283 W: Missing Blank Line separator, <400> field identifier